IUCLID

Data Set

Existing Chemical	:	ID: 88-85-7
CAS No.	:	88-85-7
EINECS Name	:	dinoseb
EC No.	:	201-861-7
TSCA Name	:	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
Molecular Formula	:	C10H12N2O5
Producer related part		
Company	:	Epona Associates, LLC
Creation date	:	28.11.2006
Substance related part		
Company	:	Epona Associates, LLC
Creation date	:	28.11.2006
Status	:	
Memo	:	Chemtura DNBP
Printing date	:	20.12.2006
Revision date	:	
Date of last update	:	20.12.2006
Number of pages	:	17
Chapter (profile)	:	Chapter: 1, 2, 3, 4, 5, 6, 7, 8, 10
Reliability (profile)	:	Reliability: without reliability, 1, 2, 3, 4
Flags (profile)	:	Flags: without flag, confidential, non confidential, WGK (DE), TA-Luft (DE), Material Safety Dataset, Risk Assessment, Directive 67/548/EEC, SIDS

1. General Information

Id 88-85-7
Date 20.12.2006

1.0.1 APPLICANT AND COMPANY INFORMATION

Type	:	cooperating company
Name	:	Chemtura Corporation
Contact person	:	
Date	:	
Street	:	
Town	:	
Country	:	
Phone	:	
Telefax	:	
Telex	:	
Cedex	:	
Email	:	
Homepage	:	

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1.0.2 LOCATION OF PRODUCTION SITE, IMPORTER OR FORMULATOR

1.0.3 IDENTITY OF RECIPIENTS

1.0.4 DETAILS ON CATEGORY/TEMPLATE

1.1.0 SUBSTANCE IDENTIFICATION

1.1.1 GENERAL SUBSTANCE INFORMATION

Purity type	:	typical for marketed substance
Substance type	:	organic
Physical status	:	solid
Purity	:	98.5 % v/v
Colour	:	yellow to brown
Odour	:	
Remark	:	Purity of test substance was 98.5%

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1.1.2 SPECTRA

1.2 SYNONYMS AND TRADENAMES

1.3 IMPURITIES

1.4 ADDITIVES

1.5 TOTAL QUANTITY

1.6.1 LABELLING

1.6.2 CLASSIFICATION

1.6.3 PACKAGING

1.7 USE PATTERN

1.7.1 DETAILED USE PATTERN

1.7.2 METHODS OF MANUFACTURE

1.8 REGULATORY MEASURES

1.8.1 OCCUPATIONAL EXPOSURE LIMIT VALUES

1.8.2 ACCEPTABLE RESIDUES LEVELS

1.8.3 WATER POLLUTION

1.8.4 MAJOR ACCIDENT HAZARDS

1.8.5 AIR POLLUTION

1.8.6 LISTINGS E.G. CHEMICAL INVENTORIES

1.9.1 DEGRADATION/TRANSFORMATION PRODUCTS

1.9.2 COMPONENTS

1.10 SOURCE OF EXPOSURE

1.11 ADDITIONAL REMARKS

1.12 LAST LITERATURE SEARCH

1.13 REVIEWS

2.1 MELTING POINT

2.2 BOILING POINT

Value	:	332 °C at
Decomposition	:	
Method	:	other
Year	:	
GLP	:	no data
Test substance	:	as prescribed by 1.1 - 1.4
Remark	:	With the vapor pressure of 1.0 torr at 151.1 °C reported for this chemical in EXTOXNET, EPA calculated a boiling point of 340.5 °C using the NOMO5 program and a boiling point of 372 °C using the MPBPVP program in EPIWIN v.3.11.
Reliability	:	(2) valid with restrictions Another estimated boiling point of 362 °C was reported in a secondary source (Mackay et al. 2000). The boiling point of 332 °C is in good agreement with these calculated or estimated values.
Flag 20.12.2006	:	Critical study for SIDS endpoint (4) (5)

2.3 DENSITY

2.3.1 GRANULOMETRY

2.4 VAPOUR PRESSURE

2.5 PARTITION COEFFICIENT

2.6.1 SOLUBILITY IN DIFFERENT MEDIA

2.6.2 SURFACE TENSION

2.7 FLASH POINT

2.8 AUTO FLAMMABILITY

2.9 FLAMMABILITY

2.10 EXPLOSIVE PROPERTIES

2.11 OXIDIZING PROPERTIES

2.12 DISSOCIATION CONSTANT

2.13 VISCOSITY

2.14 ADDITIONAL REMARKS

3.1.1 PHOTODEGRADATION

3.1.2 STABILITY IN WATER

3.1.3 STABILITY IN SOIL

3.2.1 MONITORING DATA

3.2.2 FIELD STUDIES

3.3.1 TRANSPORT BETWEEN ENVIRONMENTAL COMPARTMENTS

3.3.2 DISTRIBUTION

3.4 MODE OF DEGRADATION IN ACTUAL USE

3.5 BIODEGRADATION

Type	:	aerobic
Inoculum	:	predominantly domestic sewage
Concentration	:	33.33 mg/l related to Test substance related to
Contact time	:	29 day(s)
Degradation	:	23.97 (±) % after 29 day(s)
Result	:	other
Kinetic of testsubst.	:	9 day(s) 9.17 % % % % %
Control substance	:	Acetic acid, sodium salt
Kinetic	:	29 day(s) 100 % %
Deg. product	:	no
Method	:	OECD Guide-line 301 B "Ready Biodegradability: Modified Sturm Test (CO2 evolution)"
Year	:	2006
GLP	:	yes
Test substance	:	as prescribed by 1.1 - 1.4
Method	:	The test item was tested at a concentration of 33.33 mg/L in mineral medium (= 16.67 mg TOC), along with inoculum controls, toxicity control and positive control. The CO2 released was measured on the 3rd, 6th, 9th, 14th, 19th, 24th and 29th day after initiation of the test.
Result	:	The percent degradation of the the toxicity control was 45.09 at the end of the test.

Based on the pass levels (60% in a 10-d window), the test item was considered as non-biodegradable.

Test substance : Purity = 98.5%
Reliability : (1) valid without restriction
Flag : Critical study for SIDS endpoint
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3.6 BOD5, COD OR BOD5/COD RATIO

3.7 BIOACCUMULATION

3.8 ADDITIONAL REMARKS

4.1 ACUTE/PROLONGED TOXICITY TO FISH

4.2 ACUTE TOXICITY TO AQUATIC INVERTEBRATES

4.3 TOXICITY TO AQUATIC PLANTS E.G. ALGAE

Species	:	Scenedesmus subspicatus (Algae)
Endpoint	:	growth rate
Exposure period	:	72 hour(s)
Unit	:	mg/l
NOEC	:	.03
LOEC	:	.081 -
Limit test	:	no
Analytical monitoring	:	yes
Method	:	OECD Guide-line 201 "Algae, Growth Inhibition Test"
Year	:	2006
GLP	:	yes
Test substance	:	as prescribed by 1.1 - 1.4
Method	:	The test item was tested at .030, .081, .219, .590 and 1.594 mg/L along with negative and positive controls. The cell growth was measured at 24, 48 and 72 hours after intiation of the test.
Result	:	The 72 hour values were: EbC50 = .21 mg/L ErC50 = .74 mg/L NOEC = .030 mg/L LOEC = .081 mg/L
Test substance	:	Purity = 98.5%
Reliability	:	(1) valid without restriction
Flag	:	Critical study for SIDS endpoint

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4.4 TOXICITY TO MICROORGANISMS E.G. BACTERIA

4.5.1 CHRONIC TOXICITY TO FISH

4.5.2 CHRONIC TOXICITY TO AQUATIC INVERTEBRATES

4.6.1 TOXICITY TO SEDIMENT DWELLING ORGANISMS

4.6.2 TOXICITY TO TERRESTRIAL PLANTS

4.6.3 TOXICITY TO SOIL DWELLING ORGANISMS

4.6.4 TOX. TO OTHER NON MAMM. TERR. SPECIES

4.7 BIOLOGICAL EFFECTS MONITORING

4.8 BIOTRANSFORMATION AND KINETICS

4.9 ADDITIONAL REMARKS

5.0 TOXICOKINETICS, METABOLISM AND DISTRIBUTION

5.1.1 ACUTE ORAL TOXICITY

5.1.2 ACUTE INHALATION TOXICITY

5.1.3 ACUTE DERMAL TOXICITY

5.1.4 ACUTE TOXICITY, OTHER ROUTES

5.2.1 SKIN IRRITATION

5.2.2 EYE IRRITATION

5.3 SENSITIZATION

5.4 REPEATED DOSE TOXICITY

5.5 GENETIC TOXICITY 'IN VITRO'

Type	:	Cytogenetic assay
System of testing	:	Chinese Hamster Ovary cells
Test concentration	:	75, 150 and 300 ug/ml (with activation); 55, 110 and 220 ug/ml (without activation)
Cycotoxic concentr.	:	300 ug/ml (with activation); 150 ug/ml (without activation)
Metabolic activation	:	with and without
Result	:	positive
Method	:	OECD Guide-line 473
Year	:	2006
GLP	:	yes
Test substance	:	as prescribed by 1.1 - 1.4
Method	:	One trial each, in the presence and absence of metabolic actvation, was conducted. CHO cells were exposed to the test item in quaduplicate for 3 hours.
Result	:	The respective positive control items produced a large and statistically significant increase in aberrant metaphases, under identical conditions.
Test substance	:	Purity = 98.5%
Reliability	:	(1) valid without restriction
Flag	:	Critical study for SIDS endpoint

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5.6 GENETIC TOXICITY 'IN VIVO'

5.7 CARCINOGENICITY

5.8.1 TOXICITY TO FERTILITY

5.8.2 DEVELOPMENTAL TOXICITY/TERATOGENICITY

5.8.3 TOXICITY TO REPRODUCTION, OTHER STUDIES

5.9 SPECIFIC INVESTIGATIONS

5.10 EXPOSURE EXPERIENCE

5.11 ADDITIONAL REMARKS

6.1 ANALYTICAL METHODS

6.2 DETECTION AND IDENTIFICATION

7.1 FUNCTION

7.2 EFFECTS ON ORGANISMS TO BE CONTROLLED

7.3 ORGANISMS TO BE PROTECTED

7.4 USER

7.5 RESISTANCE

8.1 METHODS HANDLING AND STORING

8.2 FIRE GUIDANCE

8.3 EMERGENCY MEASURES

8.4 POSSIB. OF RENDERING SUBST. HARMLESS

8.5 WASTE MANAGEMENT

8.6 SIDE-EFFECTS DETECTION

8.7 SUBSTANCE REGISTERED AS DANGEROUS FOR GROUND WATER

8.8 REACTIVITY TOWARDS CONTAINER MATERIAL

(1) Advinus Therapeutics Private Limited (2006) Algal Growth Inhibition Test with 2-Sec Butyl-4,6 Dinitrophenol (CAS RN: 88-85-7)

(2) Advinus Therapeutics Private Limited (2006) In vitro Chromsome Aberration Test with 2-Sec Butyl-4,6 Dinitrophenol (CAS RN: 88-85-7)

(3) Advinus Therapeutics Private Limited (2006) Ready Biodegradability: CO2 Evolution Test with 2-Sec Butyl-4,6 Dinitrophenol (CAS RN: 88-85-7)

(4) Extension Toxicology Network (EXTOXNET) (provided by US EPA)

(5) Syracuse Research Corporation's PhysProp Database (provided by US EPA)

10.1 END POINT SUMMARY

10.2 HAZARD SUMMARY

10.3 RISK ASSESSMENT